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**FAX COVER PAGE****August 29, 2006**

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Re: Serial No.: 10/051,902  
Our Ref: BB1163 US DIV

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Pages: 4 Including This Cover Sheet

Clean Copy of Appendix A – pages 1-3

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## Appendix A (page 1 of 3)

M	10	20	30	40	50	60	CA . LASM . S . LGYD . EV . SG	Consensus #1
1	MASDELAKAV&PRKGKV-						YASICAILASNASVILGYDIGVNSG	SEQ ID NO20 . pro
1	MSBGTINKAMSDDPPTTAKVIADPDPPLKKPPKRKFAFACATLASNTSVLGYDIGVMSG						SEQ ID NO30 (GI 1778093) . pro	
1	KSBGTINKAMSDDPPTTAKVIADPDPPLKKPPKRKFAFACATLASNTSVLGYDIGVMSG						U64903 (GI 1778094) . pro	
1	MITGEVS-----VDSYDTNKPKPKRNKAACALLASMSNILLGYDIGVLSG						AF215837 (GI 12004315) . pro	
<b>A . Y . K . D . . D . Q . . . G I . . . Y . L . G S . . . R T S H . I G R R T . V . A . . I F P . G . . .</b>								
	70	80	90	100	110	120		
45	AAAYIKKDLIMITDVQLEILIGILSLSLPGSAGARTSDRIGRRRTUVFAAVIPPGSSL						SEQ ID NO20 . pro	
61	AIIVLKEDWHAISDQTQIGVLGVILNIYCLPOSFAAGRTSDWIGRRRTIVLAGAIPPGALL						SEQ ID NO30 (GI 1778093) . pro	
61	AIIVLKEDWHAISDQTQIGVLGVILNIYCLPGSPAAGRTSEWIGRRRTIVLAGAIPPGALL						U64903 (GI 1778094) . pro	
48	ASIVIKBDLHPSDVQIRIITGAIINIVSLLGSAIAGRTSDWIGRRTNLAGAIPPGALL						AF215837 (GI 12004315) . pro	
<b>M G . A . N . . . L M . G R E V . G . G Y G Y . . M I A P V Y T A E . . P . S R Q P L T . F P E V I N . G . L G Y</b>								
	130	140	150	160	170	180		Consensus #1
105	NGPAVNQNLIMAGRFFAVGVGVGGMIAPVYTAISPAASRGFLTTPEVFINIGTLGY						SEQ ID NO20 . pro	
121	NGPATNYAPLMVGRFTGIGGYALMIAPVYTAEVSPASSRGFLTSPPRVFINAGILGY						SEQ ID NO30 (GI 1778093) . pro	
121	MGFATNYAPLMVGRFTGIGGYALMIAPVYTAEVSPASSRGFLTSPPRVFINAGILGY						U64903 (GI 1778094) . pro	
108	NGLATNPAPLMPGGRPVAGIGVGYANNIAPVYTAEVSPSSRGFLTSPPRVFINAGILGY						AF215837 (GI 12004315) . pro	
<b>. S N . A F . . . P . . L . W R . N L . I G A . P S . . L A . . V . . M P E S P R W L . . G R L . . A . . V L . . . S</b>								
	190	200	210	220	230	240		
165	LSNRPAPRLPLHLGWRVMLAIGAVPSGLLALLVPCMPESPRWLVEKGRLADARAVLKT						SEQ ID NO20 . pro	
181	ISNLAPSSSLPTHLGWRMLGIGAIPSISIPLAIGVLAMPESPRWLVMQGRGLADAKKVNRIS						SEQ ID NO30 (GI 1778093) . pro	
181	ISNLAPSSSLPTHLGWRMLGIGAIPSISIPLAIGVLAMPESPRWLVMQGRGLADAKKVNRIS						U64903 (GI 1778094) . pro	
168	VSNFAFAKCPPLNLGWRMLGIGAAPPSSVALAIVLYMPESPRWLVMQGRGLBARTVLEKTS						AF215837 (GI 12004315) . pro	

PESPRWL or PESPRXL

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... B H A . . R L . . I K . . A G I . . . . . D . . . V . . . . . V W K . L . . . P T . . . V R . . . . .						Consensus #1
	250	260	270	280	290	300
225	<u>A T P E E R A E R L A D I K A A G I P K G L D G D V U T V P G E Q G G E L O V N K K L I S P T A V R R I L S</u>					
241	D S P R E A Q L R L S B I K O T A G I P A B C D E D I Y K V E K T K I K S G N - A V W K E L P F N P T P A V R R A V I A					SEQ ID NO30 (GI 1778093).pro
241	D S P R E A Q L R L S R I K O T A G I P A B C D E D I Y K V E K T K I K S G N - A V W K E L P F N P T P A V R R A V I A					U64903 (GI 1778094).pro
228	T S K E R A H Q R L S D I K B A A G I D K D M D D V - - V Q V P K R T K D E - A V W K E L L I H P T K P V R H A I T					AP215837 (GI 12004315).pro
	<u>.. G . H F F Q Q A . G . D . V V . Y S . R . F . . A G I . . . . . K . I . . . T . A V G V . R T . F I L . . T P . L . .</u>					
	310	320	330	340	350	360
285	<u>A V G L K F F Q Q A S G S D S V V O V S A R L P K S A G I T D D N K L I G V T C A V G V T K T P R I L V A T P L L O R A</u>					SEQ ID NO20.pro
300	G I G I H F F Q Q A S G I D A V V L Y S P R I F Q S A G I T H A R K Q L A T V A V G V V K T L P I L V A T F O L D K Y					SEQ ID NO30 (GI 1778093).pro
300	G I G I H F F Q Q A S G I D A V V L Y S P R I F Q S A G I T H A R K Q L A T V A V G V V K T L P I L V A T F O L D K Y					U64903 (GI 1778094).pro
285	G I G I H F F Q Q A S G I D A V V L Y S P R I F Q S A G I T H A R K Q L A T V A V G V V K T L P I L V A T F O L D K Y					AP215837 (GI 12004315).pro
	<u>(R/K)XG R(R/K) G R R P L . L . S . G G N . . . . . L . . . L T V . . . . . W A . . L . I . . . . . P S . G . G P I</u>					
	370	380	390	400	410	420
345	<u>G R R P L L I S T G G M I V S L I C I G S G L T V A G H E P D T K V A E A V A L C I A S T L S Y I A F F S I G I G P I</u>					SEQ ID NO20.pro
360	G R R P L L I S T G G M I I A I L T L A M S L T V I - D H S H H K I T W A I A L C I T M V C A V V A S P E I G L G P I					SEQ ID NO30 (GI 1778093).pro
360	G R R P L L I S T G G M I I A I L T L A M S L T V I - D H S H H K I T W A I A L C I T M V C A V V A S P S I G I G P I					U64903 (GI 1778094).pro
345	G R R P L L I S T G G M I I A I L T L A M S L T V I - N K S H H T G H W A G G L A I F T V Y A P V S I P S S G N G P I					AP215837 (GI 12004315).pro
	<u>.. V Y . S R . P P L . . R A . G . . G V A . N R . . S . . I . . . F . . . . . T . G G . P . L . . . A . . . W</u>					
	430	440	450	460	470	480
405	<u>T G V Y T B B I P P L Q V R A L G P A V G V A S N R V T S A V I S M T E L S I S K A I T I G G S R P P L Y S G I A V A R</u>					SEQ ID NO20.pro
419	T R V Y S S E V P P L R L R A Q G T S M G V A V N R V V S G V I S I F P L P L S K I T T G A F P L P G G I A I A W					SEQ ID NO30 (GI 1778093).pro
419	T R V Y S S E V P P L R L R A Q G T S M G V A V N R V V S G V I S I F P L P L S K I T T G A F P L P G G I A I A W					U64903 (GI 1778094).pro
404	A W V Y S S E V P P L R L R A Q G C S I G V A V N R G M S G I I G M T P I S M Y K A M T I G G A F L L F A V V A S I G W					AP215837 (GI 12004315).pro

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PEI QGRXXXE - SEQ ID NO20 has an R in place of the Q (similar to sugar beet sequences)

The boxed residues correspond to the sequences conserved in the sugar transporter subfamily of the major facilitator superfamily (MFS).

Shade (with black at 40% fill) residues that match SEQ ID NO20 (corn) exactly.  
\*Shading removed on August 28, 2006

**Consensus #1:** When all match the residue of the Consensus show the residue of the Consensus; otherwise show '-'.